

	SUN	MON	TUES	WED	THURS	FRI	SAT
WEEK 1				May 19	May 20	May 21	May 22
8:30 am					Student arrival at BNL - ALL DAY (Check into Housing & Begin GUV Center processing if possible)	NASA Summer School Welcome & Opening Remarks	FREE TIME
9:00 am						9:00 – 11:30 am RAD WKR II Classroom Training & Exam (Med Sm. Conf)	
10:00 am							
11:00 am							
11:30 am						11:30 – 12:30 LUNCH	
12:30 pm					<i>For students arriving before 3:30 pm</i> Training Audit, BNL Photo ID, Computer Accts, Credit Union (GUV Center)	12:30 – 1:20 pm Training Audit, BNL Photo ID, Computer Accts, Credit Union (GUV Center)	
1:30 pm				G. Nelson, K. Rogers Arrival at BNL		1:30 – 3:30 pm Radiobiology Users Training & Exam (BLDG 911 – Snyder Seminar Room)	
3:00 pm						3:30 – 5:00 pm Issue Film Badge/TLDs & Iris Scan Registration, Access Card Keys – (BLDG 911)	
3:30 pm							
5:00 pm						Free Time	5:30 pm Student Welcome / BBQ – Brookhaven Ctr Patio (Nelson and Rogers) Catered

	SUN	MON	TUES	WED	THURS	FRI	SAT
Week 2	May 23	May 24	May 25	May 26	May 27	May 28	May 29
8:30 am	FREE TIME	Medical Dept. BM/PG/KR/BW Welcome & Program Goals	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	MEET AT MEDICAL DEPT before 8:30 a.m. BNL Tour & Group Photo at NSRL w/ Elaine Lowenstein	Medical Dept. Daily Briefing	FREE TIME
9:00 am		NASA's Mission & Roadmap (Cucinotta)	NSRL Biophysics Simulation GERM Code (Cucinotta)	Quantum Physics (Norbury)		Accelerators (Lowenstein)	
10:00 am		Calculus (Norbury)	Radiobiology I (Hall)	Review (Heilbronn)		NSRL Dosimetry (Rusek)	
10:50 am		<i>Break</i>	<i>Break</i>	<i>Break</i>		<i>Break</i>	
11:00 am		Relativity (Norbury)	Radiobiology-2 (Hall)	Dosimetry (Heilbronn)	Neutron Physics (Heilbronn)	Oxidative Stress (Limoli)	
12:00 pm		<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	
1:00 pm		Particle Interactions (Heilbronn)	Radiation Chemistry, Clustered Damage (Held)	DNA Repair & Chromosome Rearrangements (Morgan)	Non-Targeted Effects (Morgan)	Space Radiation Protection (Schimmerling)	
2:30 pm		<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
2:50 pm		Energy Deposition (Heilbronn)	LET and RBE (Held)	Mutagenesis (Kronenberg)	Cell cycle effects (Sowa)	Radiation Effects on Neurons & Stem Cell (Limoli)	
4:00 pm			Tool Kit Homework Low LET Lab (Nelson)	Track Structure (Goodhead)	Apoptosis (Kronenberg)	High & low LET microbeams, Imaging (Sowa)	
5:00 pm	7:00 pm Evening	Faculty Panel	Faculty Panel	Faculty Panel	Faculty Panel	Faculty Panel	
5:30 pm	Activity with G. Nelson	6:00 – 7:30 pm Faculty Reception – Lg Conf Room Catered	End	End	End	End	

	SUN	MON	TUES	WED	THURS	FRI	SAT
WEEK 3	May 30	May 31	June 1	June 2	June 3	June 4	June 5
8:30 am	FREE TIME	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	LAB DAY - NSRL (Baulch & Guida)	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	FREE TIME
9:00 am		LAB Day - NSRL (Rusek)	Epigenetics (Baulch) & Biology Experiment Overview for 6/2	Beam Time 9:00 – 2:00	Accelerator Physics (Zeitlin)	Space Radiation Env. – Parts I & II (Patrick O'Neill)	
10:00 am		Beam Time 10:00 – 3:00			Accelerator Physics (Zeitlin)		
10:50 am		Break	Break	Break	Break	Break	
11:00 am		LAB	Biology Review (Baulch)	LAB	Model Systems (Williams)	Heart And Other Degenerative Risks (O'Banion)	
12:00 pm		Lunch	Lunch	Lunch	Lunch	Lunch	
1:00 pm		LAB	Beamtime Proposal and Mentor Assignments	LAB	Late Effects, Leukemia, Cancer (Williams)	1:00 – 2:00 CNS Effects (O'Banion)	
2:30 pm		Break		Break		Break	
2:50 pm		3:00 - 3:00 Break – go to medical	Cell Signaling / Imaging Methods (MHBH)	LAB	Mouse Models For Radiation Research (Shay)	2:20 – 5:00 pm LAB - Guida / Flow Cytometry & A. Kim / DNA Damage, etc.	
4:00 pm		3:30 – 4:30 pm Particle Physics (Norbury)		Systems Biology Approaches To Radiation Effects (MHBH)			
		4:30 – 5:30 pm Nuclear Physics (Norbury)	Faculty Panel		Faculty Panel		
5:00 pm			End	End	End	End	
5:30 pm							
6:00 pm		Evening Activity – Student Group Dinner					

	SUN	MON	TUES	WED	THURS	FRI	SAT
WEEK 4	June 6	June 7	June 8	June 9	June 10	June 11	June 12
8:30 am	FREE TIME	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	Medical Dept. Daily Briefing	DEPARTURE
9:00 am		NSRL Sim (GERMcode) Tool Kit Practical (Nelson)	Microgravity Effects (Nelson)	Hematopoietic & Immune Responses (Nelson)	Chemical Kinetics In Systems Biology (Cucinotta)	Support Team Physics Ppt Presentation	
10:00 am		Beam Time Proposals (Nelson)	Beam Time Proposals (Nelson & Baulch)	Biomarker And Biodosimetry (Amundson)	Rad Quality And Risk Models (Cucinotta)	Student Team Cell Ppt Presentation	
10:50 am		<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
11:00 am		Space Flight Measurements (Nelson)	Animal Studies (Weil)	Omics Technologies (Amundson)	History Of Radiation Protection (Meinhold)	Student Team Animal Ppt Presentations	
12:00 pm		<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	
1:00 pm		Beam Time Proposals (Nelson)	Genetics Of Animal Studies (Weil)	Review Time (Nelson & Cucinotta & Baulch)	Adult Neurogenesis And Psychiatric Disorders (Eisch)	Review Of Beam Time Proposals	
2:30 pm		<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	
2:50 pm		Effects on embryo, fetus, transgenerational (Joiner)	Acute Effects (Kennedy)	LAB TIME	Prepare Final Presentations & Submit Beam Time Proposals	Review Of Beam Time Proposals	
4:00 pm		Dose Rate Effects (Joiner)	Radioprotectors (Kennedy)	Work On Presentations	Faculty Panel	Closing Ceremony Med Lg Conf Room Catered	
5:00 pm		Faculty Panel	Faculty Panel	7 – 9 PM Dinner Banquet Catered		End	
5:30 pm		End	<i>Evening Activity – Student / Faculty Cookout</i>		End	End	